AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-53 (canceled).

54. (new): An index structure for metadata divided into fragments, comprising a list of keys corresponding to fields of the metadata, and location information for defining a key, wherein at least a part of the location information is expressed as a predetermined code.

55. (new): The index structure as claimed in claim 54, wherein the location information comprises location information of a fragment including the key, and location information of the key within the fragment.

56. (new): The index structure as claimed in claim 55, wherein one of the location information of the fragment and the location information of the key is expressed as the predetermined code.

57. (new): The index structure as claimed in claim 56, wherein the predetermined code comprises XPath as additional information where the respective fragment/key corresponds to a user defined type.

58. (new): The index structure as claimed in claim 56, wherein the other one of the location information of the fragment and the location information of the key is expressed as another predetermined code or XPath.

59. (new): The index structure as claimed in claim 54, further comprising values of the key and identification information of the metadata corresponding to the values of the key.

60. (new): The index structure as claimed in claim 54, further comprising:

a sub-section including ranges of values of the key and identification information on ones of the fragments of the metadata corresponding to the values of the key; and

a section including representative key values representing the respective ranges of values of the key.

61. (new): The index structure as claimed in claim 60, wherein:

the list includes identification information on the section, and

the section further includes identification information on the sub-section.

62. (new): The index structure as claimed in claim 60, wherein each of the representative key values is a value among the corresponding range of values of the key.

63. (new): An index structure for metadata divided into fragments, comprising:

a key index list section comprising a list of keys corresponding to fields of the metadata, and location information for defining the keys, wherein at least a part of the location information is expressed as a predetermined code;

a key index section; and

a sub-key index section, wherein for a key of the key index list:

the sub-key index section comprises ranges of values of the key and identification information on ones of the fragments of the metadata corresponding to the values of the key, and

the key index section comprises representative key values representing the respective ranges of values of the key.

64. (new): The index structure as claimed in claim 63, wherein the location information comprises location information of a fragment including the keys, and location information of the keys within the fragment.

65. (new): The index structure as claimed in claim 63, further comprising a corresponding key index section and a corresponding sub-key index section for another key of the key index list.

66. (new): The index structure as claimed in claim 63, wherein:

the key index list section further comprises identification information on the key index section, and

the key index section further comprises identification information on the sub-key index section.

67. (new): An index structure for metadata divided into fragments, comprising:

a list of keys corresponding to fields of the metadata, and location information for defining the keys, wherein at least a part of the location information is expressed as a predetermined code; and

values of the keys and identification information on the metadata corresponding to the values of the keys.

68. (new): The index structure as claimed in claim 67, wherein the identification information comprises identification information on the fragments of the metadata corresponding to the values of the keys.

69. (new): The index structure as claimed in claim 67, wherein the metadata has a structure of metadata as defined by the TV-Anytime Forum.

70. (new): A computer readable medium containing a data structure for storing an index for metadata divided into fragments, the index provided to search the metadata, the data structure comprising a list of keys corresponding to fields of the metadata, and location information for defining a key, wherein at least a part of the location information is expressed as a predetermined code.

71. (new): A computer readable medium containing a data structure for storing an index for metadata divided into fragments, the index provided to search the metadata, the data structure comprising:

a key index list section comprising a list of keys corresponding to fields of the metadata, and location information for defining the keys, wherein at least a part of the location information is expressed as a predetermined code;

a key index section; and

a sub-key index section, wherein for a key of the key index list:

the sub-key index section comprises ranges of values of the key and identification information on ones of the fragments of the metadata corresponding to the values of the key, and

the key index section comprises representative key values representing the respective ranges of values of the key.

72. (new): A computer readable medium containing a data structure for storing an index for metadata divided into fragments, the index provided to search the metadata, the data structure comprising:

a list of keys corresponding to fields of the metadata, and location information for defining the keys, wherein at least a part of the location information is expressed as a predetermined code; and

values of the keys and identification information on the metadata corresponding to the values of the keys.